

light or said green light is a ~~switch~~ two-position DIP switch.

Claim 35 (currently amended): The exit sign according to claim 34, wherein said ~~switch~~ two-position DIP switch includes the capability to simultaneously activate both said red light and said green light of said plurality of bicolor red and green LEDs so as to produce yellow light.

Claim 36 (original). The exit sign according to claim 27, wherein said means for optically diffusing said red and green light is an optical diffuser.

Claim 37 (original): The exit sign according to claim 27, further including battery means for providing emergency DC power to said plurality of bicolor red and green LEDs in the event of failure of electrical DC power.

Claim 38 (original): The exit sign according to claim 27, further including means for providing emergency light including a plurality of monochrome LEDs, said means for producing emergency light being in electrical connection to said battery means.

## **REMARKS**

The applicant has amended Claims 3, 9, 10, 11, 12, 15, 20, 21, 22, 23, 32, 33, 34, and 35 for reasons as follows:

Dependent Claim 3 has been amended to correct a grammatical error.

Independent Claim 15 has been amended in response to an objection by the examiner.

The applicant has amended Claim 9, which depends from Claim 1; Claim 20, which depends from Claim 15; and Claim 32, which depends from Claim 27. Such

amendments conform such claims to the disclosure on Page 3, Lines 6-8, wherein it is stated: "Other words, symbols, or ideogram indicia can indicate an exit. Among these are words or symbols in non-English speaking countries that have an analogous meaning to the word EXIT in English."

The applicant has amended Claim 10, which depends from Claim 1; Claim 21, which depends from Claim 15; and dependent Claim 33, which depends from Claim 27. Such amendments conform such claims to the disclosure on Page 9, lines 6-8, wherein it is stated: "Stencil 36A optionally includes other transparent areas such as two directional symbols, namely, opposed chevron areas 39A and 39B through which light beams projected by LEDs 32 pass for eventual viewing by an observer."

That is, an arrow is a directional symbol, not an exit symbol. This remark is significant for the reason that the present application is directed to an exit sign having selective red and green colors that conform to legal and custom standards in varying jurisdictions that are unrelated to directional symbols.

The applicant further has amended dependent Claims 11 and 12; dependent Claims 20 and 21; dependent Claims 22 and 23; and dependent Claims 34 and 35, so as to conform such claims to the disclosure, which describes a two-position DIP switch 54 that operates red LEDs 32A and green LEDs 32B. [Page 10, Lines 13-24; Page 11, Lines 10-18]. Also see Figure 2A.

The applicant hereby traverses each of the rejections of the claims as set forth in Paragraphs 1-43 of the Office action.

The applicant sets forth some general observations relating to the exit sign of the applicant and the exit sign art cited by the examiner, namely, Schwartz and Gleason et al.,

as follows:

**Preliminary Observations:**

The applicant's disclosure relates to an exit sign illuminated with colored LEDs.

Schwartz discloses an exit sign illuminated with colored LEDs.. Flashing of a single color or flashing of two colors by the LEDs of the exit sign in the event of a sudden emergency such as a fire is an added feature of the exit sign of Schwartz.

Gleason describes an egress sign illuminated with red LEDs 74, and describes flashing of the LEDs of the exit sign in the event of a sudden emergency such as a fire is an added feature of the exit sign of Gleason.

An emergency backup power system in the event of a power failure (as distinguished from an emergency such as a fire) is described for the three above exit signs.

As will be discussed in detail under the designated Paragraphs, Schwartz clearly requires a manufacture or assembly of various models of the exit sign each relating to the installation of the permanent color of the LED illuminating the letters that is required at the installation site with the result that various models of the exit sign must be made. Once situated at the installation site, the required color of the letters of the exit sign, either red or green, cannot be changed. If there is an error, the model of the exit sign of Schwartz must be shipped back to the manufacturer to be replaced by another model for shipment. Schwartz does not disclose a means for selection of the required color of the letters of the exit sign at the installation site.

The same observation is true of Gleason. That is, the required color of the letters of the exit sign must be installed at the place of manufacture, so that a particular model of

exit sign is shipped. Gleason does not provide selective activation of the required color of the letters of the exit sign at the installation site. In case of a mistake, another model must be shipped.

The applicant's application is directed to an exit sign that is manufactured as a single model with both red and green monochrome or bicolor LEDs for illuminating the letters of the exit sign along with a structured means (a two-position DIP switch) for selectively activating either the red or the green color at the installation area in accordance with the law or custom of the jurisdiction of installation. To repeat: only one model of the exit sign is assembled and shipped to the site of installation.

As will be discussed in detail under the appropriate paragraphs below, neither Gleason nor Schwartz anticipates nor suggests either alone or in combination such a structure or capability.

The applicant transverses each of the rejections of the examiner in detail as follows:

**Paragraph 1**

The examiner states that Claims 1-2, 5, and 8-14 under 35 U.S.C. 102(b) were anticipated by Gleason et al. (U.S. Patent 5446440).

The applicant respectfully traverses the totality of such rejections in accordance with arguments against the specific reasons of the examiner in each of the following paragraphs:

**Paragraph 2**

The examiner rejects Claim 1 setting forth in general the elements disclosed by Gleason.

The applicant respectively traverses the rejection of Claim 1 as follows:

The applicant herein sets forth the Claim 1 of the applicant with the inventive features that distinguishes the claim from Gleason in distinguishing highlight as follows:

“a plurality of LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of LEDs being mounted in mutual lighting association in said housing,” and

“means for selective activation of said plurality of LEDs to produce either said red light or said green light”

Gleason discloses only one color of LED. The applicant grants that the color of the LEDs is not at issue. What is at issue, however, is the fact that Claim 1 of the applicant has a significant feature of having two colors of LEDs.

Furthermore and most significantly, Claim 1 shows means for selective activation of the plurality of LEDs to produce either red light or green light wherein a combination of inventive features is claimed.

None of the inventive features of 1) the two colors of LEDs, 2) the means for selection activation of the two colors of LEDs, nor 3) the combination of the two prior mentioned inventive features are disclosed individually or in combination in the Gleason patent.

The applicant has already noted in page 1 of the application under the section headed “Field of the Invention” that: “In 1985 light emitting diodes (LEDs) were introduced for use in exit signs.”

Thus, the mere presence of LEDs in Claim 1 is not new. The presence of a plurality of LEDs in Gleason is not a significant feature that anticipates the combination

of the distinctive features in the main Claim 1.

The usefulness of the exit sign as claimed in Claim 1 is directed to the manufacturer, wholesaler, and retailer rather than to the user. This advantage is set forth on page 3, second paragraph of the application.

“An LED exit sign manufacturer, wholesaler, and retailer can stock only one basic version of the selective color LED lamp exit sign thereby reducing manufacturing, inventory, and shipping costs. The selective color LED lamp is designed to replace existing incandescent and single color LED lamps.”

With this use in mind, the applicant makes an observation that might be said to summarize the essence of the application that clearly distinguishes it from Gleason. Attention is directed to Figure 2A where a two-position DIP switch 54 is shown.

Two-position DIP switch 54, which contains two separate switches, (Page 10, second full paragraph, line 1) is in fact the “means for selective activation of the plurality of LEDs to produce either red light or green light,” Two-position DIP switch 54 is directly and easily accessible to a wholesaler, retailer, user, or installer. Two-position DIP switch 54 is selectively operated to select the color mode that is required in accordance with the legal requirement or custom of the area where the Exit Sign is to be used. Two-position DIP switch 54 is also shown in Figure 3, Figure 4, Figure 5 and Figure 6. The operation of two-position DIP switch 54 is set forth in page 10 of the disclosure as follows:

“A DIP switch 54 containing two separate switches is positioned on circuit board 35 proximate to and in electrical connection to LEDs 32. DIP switch 54 is in electrical connection to circuitry connected to the circuit board (not shown) and LEDs 32, and is

manually operable to select any one of the following options as shown in DIP switch settings table 2A as follows:

1. Deactivation of selective color LED sign 10;
2. Activation of red LEDs 32A, so as to produce red color as represented by red beam 42;
3. Activation of green LEDs 32B, so as to produce green color as represented by green beam 44;
4. Activation of both red LEDs 32A and green LEDs 32B resulting in the emission of red and green colors that mix to produce yellow light as represented by yellow beam 46.

Further references to two-position DIP switch 54 are to be found on pages 11 and 15, and to two-position DIP switch 54A (see retrofit embodiment of Figure 6) on page 17 of the disclosure.

Gleason nowhere discloses a selective capability as two-position DIP switch 54. The applicant respectively observes that the above argument is clearly sufficient to transverse the rejection of Claim 1.

### **Paragraph 3**

The examiner rejects Claim 2 wherein the examiner states that “Gleason reads upon all positively cited structural limitations of Gleason, wherein a plurality of LEDs is disclosed [Column 6, Lines 7-14].”

The applicant respectively traverses the rejection of Claim 2 as follows.  
Claim 2 depends upon Claim 1. Gleason does not anticipate the structural limitations of Claim 2 that Gleason reads upon are nonetheless combined with the

inventive features and the combination of such inventive features in Claim 1. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 1 applies to Claim 2, and therefore the reason for the examiner's rejection of claim 2 is likewise overcome.

**Paragraph 4**

The examiner rejects claim 5 on the basis that "Gleason discloses the means for optically diffusing the light is an optical diffuser, whereby emitted light is passed through a red filter panel/diffuser in providing a uniform red glow. [Column 6, Lines 10-14].

The applicant respectively traverses the rejection of Claim 5 as follows:

The optical diffuser of Claim 1 is not anticipated by the red filter panel/diffuser of Gleason. That is, the means for optically diffusing in Claim 1 is for either red or green light since Claim 5 is dependent on Claim 1.

Most significantly, however, Claim 5 depends upon Claim 1. The cited structural limitations recited in Claim 5 that are also shown in Gleason are nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1 that are not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claims 1, 2, and 3 also applies to Claim 5, and therefore the reason for the examiner's rejection of claim 5 is likewise overcome.

**Paragraph 5**

The examiner rejects claim 8 on the basis that "Gleason discloses the indicia including four independent letters that form the word "EXIT" [Figure 2: (56)]."

The applicant respectively traverses the rejection of Claim 8 as follows:

The applicant does note that Gleason discloses “indicia symbolizing an exit” of Claim 8.

The significant fact, however, is that Claim 8 depends upon Claim 1. The cited structural limitation recited in Claim 8 that is also shown in Gleason is nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1 that are not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner’s rejection of Claims 1, 2, and 3 also applies to Claim 8, and therefore the reason for the examiner’s rejection of claim 8 is likewise overcome.

#### **Paragraph 6**

The examiner rejects Claim 9 on the basis that “Gleason discloses the indicia including at least one symbol indicating an exit [Figure 2:(56,58)].”

The applicant has amended claim 9 to read as follows:

“Claim 9 (currently amended): The exit sign according to claim 1, wherein said indicia symbolizing an exit includes at least one symbol indicating an exit.”

The applicant notes that indicia are not by definition limited to the word EXIT in English, but as earlier stated can include “words or symbols in non-English speaking countries that have an analogous meaning to the word EXIT in English.” (See application, Page 3, Lines 6-8.).

The applicant respectively traverses the rejection of Claim 9 as follows:

The applicant notes that under the amended Claim 9 Gleason generally discloses the element of “indicia symbolizing an exit”.

The significant fact, however, is that Claim 9 depends upon Claim 1. The cited

structural limitation recited in Claim 9 that is also shown in Gleason is nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1. Gleason does not anticipate these inventive features. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 1 also applies to Claim 9, and therefore the reason for the examiner's rejection of claim 9 is likewise traversed.

#### **Paragraph 7**

The examiner rejects Claim 10 on the basis that "Gleason discloses the at least one symbol being a chevron arrow [Figure 2: (58)]."

The applicant has amended Claim 10 as follows:

"Claim 10 (currently amended): The exit sign according to claim [[9]] 1, wherein  
~~said at least one symbol is a chevron arrow further including means for passing light from selected said red light or selected said green light in the form of at least one directional symbol enabling viewing by an observer.~~"

The applicant respectively traverses the rejection of Claim 10 as follows:

The applicant has amended Claim 10, which now depends from Claim 1. Such amendment conforms to the disclosure on page 9, lines 6-8, wherein it is stated: "Stencil 36A optionally includes other transparent areas such as two directional symbols, namely, opposed chevron areas 39A and 39B through which light beams projected by LEDs 32 pass for eventual viewing by an observer." (Underscoring added for emphasis.)

An arrow is a directional symbol, not an exit symbol. This remark is significant for the reason that the present application is directed to an exit sign having selective red

and green colors that conform to legal and custom standards in varying jurisdictions that are unrelated to directional symbols. Gleason discloses a chevron arrow.

The significant fact, however, is that Claim 10 depends upon Claim 1. The argument for the allowance of Claim 10 is the same as that set forth for Claim 1. That is, the limitation recited in Claim 10 that is also shown in Gleason is nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1 that are not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 1 also applies to Claim 10, and therefore the reason for the examiner's rejection of Claim 10 is likewise transversed.

### **Paragraph 8**

The examiner rejects Claims 11-12 on the basis that "Gleason discloses the means for selective activation being a switch.[Figure 6 (178)]."

The applicant notes that Claim 11 and 12 have been amended, so as to change the term "switch" to "two-way DIP switch" in accordance with two-way DIP switch 54 as set forth on Page 11, Lines 13-24, of the disclosure.

The applicant respectively traverses the rejection of Claim 11 as follows:

The applicant notes that the feature of Claim 11 regarding "means for selective activation to produce either of said red light or said green light" being a switch is in fact not disclosed by Gleason.

The switch of Claim 11, now the two-way DIP switch, which is based upon DIP switch 54 discussed earlier herein. DIP switch 54 is as before noted is shown in Figures 3, 4, 5, and 6 of the disclosure and discussed on pages 9, 11, 15, and 17 of the disclosure.

The switch of Claim 12 is based on two-position DIP switch 54, which is also operated to produce an optional single yellow color beam 46 is produced from a combination of red color emitted from red LED 36A and green color emitted from single green LED 36B. Yellow color beam 46 is shown in Figures 2 and 2A.

The switch 178 that Gleason discloses is in fact a test switch (Col. 7, line 62) to test a battery backup 212. (Col. 8, lines 48-58). Test switch 178 is also described in Claim 1 of Gleason as follows: "...a test switch for converting said high voltage AC power into low voltage DC power output;". Switch 178 of Gleason is not activated to produce a selected red light or green light. No such switch is described in Gleason for the reason that Gleason does not disclose two different colors or light to activate selectively.

The applicant believes that the above argument distinguishes the switch of Gleason from the switch of Claim 11 of the present application.

A significant fact, however, is that Claim 11 depends upon Claim 1. The argument regarding Claim 11 includes the same as that set forth for Claim 1. That is, the limitation recited in Claim 11 is combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of one of the two colors of LEDs in Claim 1 that are not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 1 also applies to Claim 11, and therefore the reason for the examiner's rejection of claim 11 is likewise overcome.

The applicant makes the following argument regarding the rejection of Claim 12. Claim 12 is based on Claim 11, therefore the arguments above relating to Claim 11 apply likewise to Claim 12.

The applicant notes that the feature of Claim 12, wherein “said switch includes the capability to simultaneously activate both said red light and said green light so as to produce yellow light” is not anticipated by any switch of Gleason and in particular switch 178 of Gleason. That is, Gleason discloses only one color LED and therefore there is no basis for the switch of Gleason to simultaneously activate two colors of LEDs to produce a third color.

As set forth herein above and as set forth on page 3 and shown in Figure 2A, the activation result of option 4 (Page 10, Lines 23-24) of DIP switch 54 is “ Activation of both red LEDs 32A and green LEDs 32B resulting in the emission of red and green colors that mix to produce yellow light as represented by yellow beam 46. ”

The applicant believes that the above argument distinguishes the DIP switch of Claim 12 from switch 178 of Gleason, which as has been discussed not activated to produce a selected red light or green light or both a green and a red light to produce a yellow light. Furthermore, Gleason discloses only one color of LED.

A significant fact is that Claim 12 depends upon Claim 11, and Claim 11 depends upon Claim 1. Claims 11 and 12 include the same features that are set forth in Claim 1. As such, the limitations recited in Claims 11 and 12 are combined with the unique inventive limitations of the two colors of LEDs which are also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1 that are not anticipated by Gleason. Therefore, the applicant believes that the same arguments that the applicant has set forth in regard to the examiner’s rejection of Claim 1 also apply to Claims 11 and 12.

The applicant therefore believes that the reasons for the examiner’s rejections of

Claims 11 and 12 are overcome.

**Paragraph 9**

The examiner rejects Claim 13 on the basis that “Gleason discloses a battery means [Figure 6; (212)] for providing emergency DC power to the plurality of LEDs.”

The applicant respectively traverses the rejection of Claim 13 as follows.

The applicant notes that the emergency battery of Claim 13 is based on battery 26, Figures 4 and 5, which has a similar function as battery 212 of Gleason.

A significant fact is that Claim 13 depends upon Claim 1. Therefore, the arguments made by the applicant regarding Claim 13 are the same as that set forth for Claim 1. That is, the limitation recited in Claim 13 are combined with the unique inventive two colors of LEDs, which are also combined with the inventive means of selective activation of the two colors of LEDs in Claim 1 that are not anticipated by Gleason.

Therefore, the applicant believes that the same argument that the applicant has set forth in regard to the examiner’s rejection of Claim 1 also applies to Claim 13, and therefore the reason for the examiner’s rejection of Claim 13 is likewise overcome.

**Paragraph 10**

The examiner rejects Claim 14 on the basis that “Gleason discloses means for providing emergency light including a plurality of monochrome LEDs, whereby means for producing emergency light being in electrical connection to the battery means [Figure 6; Column 9, Lines 6-32].

The applicant respectively traverses the rejection of the examiner as follows:

The applicant notes that the “means for producing emergency DC power to

“plurality of monochrome LEDs” of Claim 14 has a similar function as the “means for providing emergency light including a plurality of monochrome LEDs” of Gleason.

The significant fact, however, is that Claim 14 depends upon Claim 1. Therefore, the arguments made by the applicant regarding Claim 1 are the same as that for Claim 14. That is, Gleason does not anticipate the limitation recited in Claim 14 when combined with the limitations of two colors of LEDs that combined with the limitation of means of selective activation of one of the two colors of LEDs in Claim 1.

Therefore, the applicant believes that the same argument that the applicant has set forth in regard to the examiner’s rejection of Claim 1 also applies to Claim 14, and therefore the reason for the examiner’s rejection of Claim 14 is likewise overcome.

### **Paragraph 11**

The applicant rejects independent Claim 15 and dependent Claims 16 and 19-26 under 35 U.S.C. 102(b) as being anticipated by Schwartz (U.S. Patent 5448843).

The applicant respectfully traverses the totality of such rejections in accordance with arguments against the specific reasons of the examiner in each of the following paragraphs.

### **Paragraph 12**

With regard to Claim 15, the examiner has set forth several elements in relation to Schwartz in the rejection of Claim 15, the most relevant of which in the view of the applicant are as follows:

- 1) “a plurality of monochrome red LEDs and a plurality of monochrome green LEDs that are mounted in mutual lighting association in the housing [Column 6, Lines 24-26]”,

2) “means for selective activation of the plurality of monochrome red LEDs or plurality of green LEDs [Figure 5; Column 6, Lines 39-41];”

The applicant respectfully traverses the rejection of the examiner as follows:

Schwartz has descriptive material [Column 6, Lines 12-21] that sets forth the illumination of contrasting red and green LEDs for the letter strokes 13-16 and the background area 12 illumination, respectively. This reference is consistent with Figure 4 of Schwartz.

At this point, the applicant notes essential differences between the disclosure relating to Claim 15 of the applicant and the disclosure of Schwartz.

The disclosure and the claims of the applicant describe an exit sign that is adaptable to meet all the known fire and building and fire code regulations throughout the United States (See Pages 2 and 3 of the applicant’s disclosure). These various codes require the exit sign to exhibit a certain color, usually either red or green, or possibly yellow in some instances, for the illumination of the letters of the exit sign. Thus, it follows that the exit sign of Schwartz and the exit sign of the applicant in Claim 15, must show one color, generally either red or green, to illuminate the letters of the exit sign at the site of installation. The disclosure and claims show two colors of LEDs, but this is only to allow a selection of a single color of LED to illuminate the letters of the exit sign. In the jurisdiction of installation, the selection of either red or green is accomplished by the operation of two-position DIP switch 54, which is the embodiment shown in the application. This embodiment is the one preferred in the art, but variations of this embodiment can of course be used.

The selected red or green diodes of Schwartz that relates to the letters are hard

mounted into separate models of Schwartz disclosure. Thus, Schwartz must make two models of exit sign each having either a red monochrome diode or a green monochrome diode. If the wrong model arrives at the installation site, it cannot be used or altered and must be returned to the manufacturer for replacement.

The manufacturer of the applicant's disclosure and of Claim 15 can build a single model of exit sign with a selective means for selecting at any time one or the other of the red or green color of LEDs to illuminate the letters of the exit sign. This ability is shown and described in the embodiment of the two-position DIP switch 54 that is operative by a user or installer at various sites to conform to various codes.

The exit sign of Schwartz describes two colors of monochrome LEDs, one red and the other green. These two colors of monochrome LEDs, however, are not selective to conform to various fire and building codes, but one or the other of the two colors is hard mounted to illuminate both the background area 12 and the letters 13 to 16 of the exit sign as shown in Figures 1 and 4. Fire and building codes do not require two colors, but only one color and that color is associated with the illumination of the letters of "EXIT".

It is worth mentioning that the applicant does not describe a color for illuminating the background area of the exit sign. That is not required by the codes.

It is also worth mentioning that Schwartz states "the troughs of the letter strokes will be filled with red-tinted resin, and the background areas filled with green-tinted resin." [Column 6, Lines 26-29]. Thus, Schwartz further makes clear that the EXIT letters are hard colored and the color cannot be selectively changed.

Schwartz states [Column 6, Lines 36-38] that two strings of single color

(monochrome) LEDs could be provided in contrasting colors in each area, that is, the letter EXIT area and the background area, and alternately powered to change the color. That capability is related to sudden emergencies, such as a fire. The installed color to illuminate the letters of the exit sign cannot be changed.

That is, the problem with anticipation of the features of the present claims by Schwartz here is that the various codes require a permanent red or green color to illuminate the EXIT letters. Thus, if Schwartz places a red LED string in the EXIT letters, only a red color is possible in that area. Likewise, if Schwartz places a green LED string in the EXIT letters, only a green color is possible. Color selection after manufacture is not possible. Subsequent wiring to make possible alternating of colors in the event of an emergency does not effect the permanent color for the letters of the exit sign.

The present disclosure, however, places two colors of LEDs, red and green, in the housing area of the EXIT letters. Simple operation of two-position DIP switch 54 by the installer selects the color required by the local fire or building codes, one of the other of red or green, and the code requirement is met. (See Figures 2 and 2A.)

For these reasons, the applicant believes that the reason for the examiner's rejection of Claim 15 is traversed.

### **Paragraph 13**

The examiner rejects Claim 16 on the basis that Schwartz said to read upon all the positively cited structural limitations of the present disclosure, wherein a plurality of monochrome red LEDs and a plurality of monochrome green LEDs are disclosed [Column 6, Lines 24-26].

The applicant respectfully transverses the rejection of dependent Claim 16 as

follows:

Although dependent Claim 16 refers to the plurality of monochrome red and green LEDs of independent Claim 15, Claim 16 does not claim the plurality of monochrome red and green LEDs. Rather Claim 16 claims the means for simultaneous selective activation of the previously claimed monochrome red LEDs and monochrome green LEDs, so as to emit both red light and green light so as to produce yellow light.

As discussed above in reference to Paragraph 12, the one or the other of the monochrome red and green LEDs of Schwartz is hard positioned in the troughs of the EXIT letters 13-16 and thus the color of the LEDs in the troughs of EXIT 13-16 cannot be selectively activated. Thus, Schwartz does not anticipate the feature of Claim 16 that both red and green colors of the monochrome LEDs to produce the color yellow.. Also, the features of dependent Claim 16 include the features of independent Claim 15, which the applicant believes has been traversed. Thus, the applicant believes that Schwartz does not anticipate dependent Claim 16.

For this reason, the applicant believes the ground for the rejection of Claim 16 is traversed.

#### **Paragraph 14**

The examiner rejects dependent Claim 19 on the basis that Schwartz discloses the indicia including four independent letters forming the word “EXIT” [Figure 1: (13-16)].

Claim 19 does claim indicia symbolizing four independent letters forming the word “EXIT”.

The significant fact, however, is that Claim 19 depends upon independent Claim

15. The cited structural limitation recited in Claim 19 is combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of the two colors of LEDs in Claim 15. Schwartz does not anticipate these inventive features.. Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 15 in Paragraph 12 also applies to Claim 19, and therefore the reason for the examiner's rejection of claim 19 is likewise overcome.

Although Schwartz anticipates the four independent letters forming the word "EXIT" of Claim 19, it has been shown that Schwartz does not anticipate essential features of independent Claim 15 as discussed above and for that Schwartz has not anticipated reason Claim 19, which is dependent on Claim 15 and therefore contains essential features of Claim 15.

For this reason, the applicant believes that the rejection of Claim 19 is traversed.

### **Paragraph 15**

The examiner rejects Claim 20, which is dependent on independent Claim 15, on the basis that Schwartz discloses the indicia including at least one symbol indicating an exit. [Figure 1: (17-18)]

The applicant has amended claim 20 to read as follows:

"Claim 20 (currently amended): The exit sign according to claim 15, wherein said indicia symbolizing an exit includes at least one symbol indicating an exit."

The applicant notes that indicia are not by definition herein limited to the word EXIT in English but can include "words or symbols in non-English speaking countries that have an analogous meaning to the word EXIT in English." (See application, Page 3, Lines 6-8.).

The applicant respectively traverses the rejection of Claim 20 as follows:

The applicant notes that under the amended Claim 20 Gleason generally discloses the element of “indicia symbolizing an exit”.

The significant fact, however, is that Claim 20 depends upon Claim 15. The cited structural limitation recited in Claim 20 that is also shown in Gleason is nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of either said plurality of monochrome red LEDs to produce said red light or said plurality of said monochrome green LEDs to produce said green light that is not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner’s rejection of Claim 15 also applies to Claim 20, and therefore the reason for the examiner’s rejection of claim 20 is likewise traversed.

For this reason, the applicant believes that the rejection of Claim 20 is traversed.

#### **Paragraph 16**

The examiner rejects Claim 21 on the basis that “Gleason discloses the one symbol being a chevron arrow [Figure 1: (17-18)].”

The applicant has amended Claim 21 as follows:

“Claim 10 (currently amended): The exit sign according to claim [[20]] 1, ~~wherein said at least one symbol is a chevron arrow further including means for passing light from selected said red light or selected said green light in the form of at least one directional symbol enabling viewing by an observer.”~~

The applicant respectively traverses the rejection of Claim 21 as follows:

The applicant has amended Claim 21, which now depends from independent

Claim 15. Such amendment conforms to the disclosure on page 9, lines 6-8, wherein it is stated: “Stencil 36A optionally includes other transparent areas such as two directional symbols, namely, opposed chevron areas 39A and 39B through which light beams projected by LEDs 32 pass for eventual viewing by an observer.” (Underscoring added for emphasis.)

An arrow is a directional symbol, not an exit symbol. This remark is significant for the reason that the present application is directed to an exit sign having selective red and green colors that conform to legal and custom standards in varying jurisdictions that are unrelated to directional symbols. Gleason discloses a chevron arrow.

The significant fact, however, is that Claim 21 depends upon Claim 15. The argument for the allowance of Claim 15 is the same as that set forth for Claim 21. That is, the limitation recited in Claim 21 that is also shown in Gleason is nonetheless combined with the unique inventive two colors of LEDs also combined with the inventive means of selective activation of either said plurality of monochrome red LEDs to produce said red light or said plurality of said monochrome green LEDs to produce said green light that is not anticipated by Gleason. Therefore, the same argument that the applicant has set forth in regard to the examiner’s rejection of Claim 1 also applies to Claim 10, and therefore second full paragraph, last sentence, as follows: “Stencil 36 optionally defines two directional signals, namely, opposed chevron arrow openings 39A and 39B through which light beams projected by LEDs 32 pass for eventual viewing by an observer.”

The applicant notes that the lexicon definition of the word “arrow” is as follows: “something shaped like an arrow; *esp.*: a mark (as on a map or signboard) to indicate direction.” (Underscoring added for emphasis.) (Merriam Webster’s Collegiate

Dictionary) In accordance with this definition an arrow in itself does not indicate an exit.

This matter is significant for the reason that Schwartz states “The LEDs illuminating the left (62) and right (64) arrows...” Paragraph 16 of the examiner is directed at Claim 21, which is dependent on independent dependent Claim 15. The directional symbol in Claim 21 is distinctive and apart from “means for passing light from selected red light or selected green light in the form of indicia symbolizing an exit enabling viewing by an observer”.

Claim 21 is dependent upon independent claim 15, and therefore Schwartz in Claim 21 does likewise not anticipate all elements not anticipated by Schwartz in Claim 15. The applicant has traversed the rejection of Claim 15 in Paragraph 12.

For the reasons stated above, the applicant believes that the rejection of Claim 21 has been traversed.

### **Paragraph 17**

The examiner rejects Claim 22, which is dependent on independent Claim 15, on the basis that Schwartz discloses the means for selective activation of the plurality of LEDs being a switch [Column 7, Lines 3-25].

The applicant respectively traverses the rejection of the examiner as follows:

Switches 63 and 65 of Schwartz operate diodes 62 and 64 that illuminate arrows 62 and 64. A primary feature of the applicant’s disclosure is means to select either red or green diodes that illuminate exit letters 38A-38D in accordance with laws or customs of various jurisdictions. The embodiment of such means to select is two-position DIP switch 54, which is operable at the jurisdiction of installation by, for example, the installer. Thus, the exit signs of the present application can be manufactured uniformly

and shipped to various sites as a unit and the particular color red or green selected on site. The exit signs of Schwartz must be manufactured as separate models beforehand in accordance with special color requirements to meet the criteria of the various jurisdictions where they are to be installed.

Furthermore, and this remark is of the essence, Schwartz does not disclose any means to select the color of illuminations LEDs for exit letters 13-16. The monochrome LEDs 61 of Schwartz are selected to be either red or green at the place of manufacture. Schwartz discloses no switch to select the color red or the color green of monochrome LEDs 61. In emergency operation of Schwartz [Column 8, Lines 2-10], the monochrome LEDs 61 of Schwartz flash between red and green at monochrome LEDs 66 of background area 12 and monochrome LEDs 61 at letters 13-16. The colors red or green at background area 12 and exit letters 13-16 are preselected by the manufacturer of the Schwartz exit sign, so that they cannot be changed later at the place of installation. [Column 8, Lines 3-10 and Lines 31-41].

The same arguments made by the applicant relative to Paragraphs 12 and 13 likewise apply here.

In summary, the color of the LEDs of Schwartz are hard wired, that is, hard colored, since they are monochrome LEDs and only either a green LED or a red LED can be mounted at one time in the troughs of the letters 13-16. Schwartz shows no structure that allows switching between red and green colors in the troughs of letters 13-16 forming the word “EXIT”.

In addition, the examiner’s reference to Column 7, lines 3-25 of Schwartz show only a reference to left arrow 62 and right arrow 64. The argument of the applicant in the

response to Paragraph 16 likewise applies, namely, that the arrows of Schwartz do not apply to the “indicia symbolizing an exit enabling viewing by an observer” of Claim 15.

Claim 22 depends upon independent Claim 15. The applicant believes that it has been shown that Schwartz does not anticipate essential features of independent Claim 15 as discussed earlier. For that reason Claim 22, which contains features of Claim 15, are not anticipated by Schwartz.

The applicant believes that the rejection of Claim 22 has been traversed.

### **Paragraph 18**

The examiner rejects Claim 23 on the basis that Schwartz discloses the switch simultaneously activating both the red and green plurality of LEDs means for selective activation of the plurality of LEDs [Column 7, Lines 3-25]. The disclosure cited by the examiner would include Figure 5.

The applicant notes that Claim 23 has been amended as shown below for the reason that two-position DIP switch 54 is disclosed as the embodiment of the disclosure to select the red or green color of the monochrome LEDs to illuminate the letters of the exit sign.

“Claim 23 (amended) The exit sign according to claim 22, wherein said two-way DIP switch includes the capability to simultaneously activate both said red light and said green light so as to produce yellow light.”

The basis for this claim amendment is two-position DIP switch 54. (Page 11, Lines 10-18 in the applicant’s disclosure.)

The applicant respectfully traverses the rejection of the examiner as follows:

Throughout the Schwartz reference [Column 7, Lines 3-25], it is apparent that

switches 63 and 65 of Schwartz operate LEDs for the red and green arrows 62 and 64.

Also, Claim 23 is dependent on dependent Claim 22, which is dependent on independent Claim 15, which includes “a plurality of monochrome red LEDs and a plurality of monochrome green LEDs having the capability of being selectively activated to produce either red light or green light”. The section of Schwartz quoted by the examiner shows only a permanent one-color of the letters of the exit sign that the selected color of the arrow is to contrast with. It is the preselected red or green color that illuminates the letters 13-16 that determines the color red or green that illuminates the arrows. In a more practical sense, the manufacturer ships either a model of an exit sign that illuminates the letters 13-16 with red diodes or a model of an exit sign that illuminates the letters 13-16 with green diodes. For a reason that has limited useful purpose, Schwartz describes a model of exit sign whereby the manufacturer provides switches 63 and 65 that illuminate the arrows 62 and 64 to activate red or green diodes to illuminate arrows 62 and 64 to stand out from the color of the background color or to blend into the color of the background color. [Column 7, Lines 15-19].

Because Claim 23 is dependent on Claim 22 and Claim 22 is dependent on independent Claim 15, Claim 23 contains all the limiting features of Claim 15, which are not shown by Schwartz as noted above.

Also, switches 63 and 65 of Schwartz are described as follows: “In the preferred two-color embodiment shown, the switches switch the arrows from the foreground color to the background color.” [Column 7, Lines 9-11]. LEDs 62 of Schwartz are mounted in the troughs of the arrows and are of a monochrome color, either red or green. As such, only the arrows of Schwartz are affected not the letters 13-16.

Thus, Schwartz does not anticipate the Claim 23. In a further argument, the applicant notes that an essential inventive element of the applicant's disclosure for Claim 15 is made clear therein, namely, "means for selective activation of either said plurality of monochrome red LEDs to produce said red light or said plurality of monochrome green LEDs to produce said green light." Switches 63 and 65 of Schwartz do not anticipate the switch of Claim 22, which is a recitation of the embodiment of the means element of independent Claim 15, namely, two-position DIP switches 54. Operation of two-position DIP switch 54 effectively turns on one or the other of red or green LEDs 32A or 32B , respectively, that illuminate EXIT letters 39A-D.

It is apparent that Schwartz does not anticipate the element quoted of Claim 23 for the reason that Schwartz does not disclose both two monochrome colors that “pass light from the selected red light or selected green light in the form of indicia symbolizing an exit.”

In addition, Claim 23 is dependent on Claim 22, which is dependent on Claim 15. It has been shown that Schwartz does not disclose essential features contained in Claim 15 and thus does not anticipate Claim 23.

For this reason alone, in addition to the fact that the Schwartz monochrome LEDs illuminate only the left 62 and right 64 arrows, which are irrelevant to Claims 15 and 22, the applicant believes that the examiner’s rejection of Claim 23 has been traversed.

#### **Paragraph 19**

The examiner rejects Claim 24 on the basis that Schwartz discloses the means for optically diffusing the light being an optical diffuser. [Figures 3-4: (31); Column 6, Lines 3-6].

The examiner has reference to transparent substance 31, which fills the troughs, and is preferably a plastic resin. The resin is preferably colored the same as the LEDs to aid in the diffusion and to provide color when the lights are off. The resin in the letter stroke area and in the background area is preferably tinted in contrasting colors.

The applicant respectively traverses the rejection of the examiner as follows:

First of all, substance 31 is not a true optical diffuser since Schwartz states the resin is preferably colored. Also, the resin is said to merely aid in diffusion.

The definition of “diffuser” in Webster’s Collegiate Dictionary is: “a device (as a reflector) for distributing the light of a lamp evenly” It is apparent that substance 31 does

not distribute light evenly since it varies in thickness in troughs. [Column 5, Lines 24-34]

The entire reference makes clear that the troughs comprise inwardly facing slopes, thus making the resin uneven in thickness. The diffusion of light is thus uneven.

More significantly, the applicant notes that the resin in the letter stroke area is preferably tinted in one color and the resin in the background area is tinted in another color. Thus the red color and the green color are hard-wired or hard-colored and cannot be selected.

Also, Claim 24 is dependent upon independent Claim 15. Therefore, the argument of the applicant as related to Claim 15 in Paragraph 12 of the examiner likewise applies to dependent Claim 24, which is dependent upon independent Claim 15, and Schwartz in Claim 24 does likewise not anticipate inventive elements not anticipated by Schwartz in Claim 15.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 24 has been traversed.

#### **Paragraph 20**

The examiner rejects Claim 25 on the basis that Schwartz discloses battery means to power the plurality of monochrome red and green LEDs [Column 7, Lines 29-30].

The applicant respectively traverses the rejection of the examiner as follows:

Claim 25 is based upon the embodiment of emergency battery 26 also shown in Figures 4 and 5.

Schwartz discloses a backup battery 54 [Column 7, Lines 38-41] also shown in Figure 5. The applicant believes that the Schwartz power source 55 disclosed in Column 7, Lines 29-30 is served by emergency backup 54 of Schwartz..

Backup battery 54 of Schwartz and backup battery 26 of the applicant perform similar functions.

Nonetheless, Claim 25 is dependent upon independent Claim 15. Therefore, the argument of the applicant as related to Claim 15 relating to Paragraph 12 of the examiner likewise applies to dependent Claim 25, which is dependent upon independent Claim 15, and Schwartz in Claim 21 does likewise not anticipate inventive elements not anticipated by Schwartz in Claim 15..

For the reason set forth the applicant believes that the examiner's rejection of Claim 25 has been traversed.

### **Paragraph 21**

The examiner rejects Claim 26 on the basis that Schwartz discloses means for providing emergency light including a plurality of monochrome LEDs, whereby the means for producing emergency light is electrically connected to the battery means [Column 7, Line 61 – Column 8, Line 10].

As argued previously with regard to Paragraph 12 and independent Claim 15, Schwartz discloses one color of LEDs 61 to illuminate the EXIT letters and another color of LEDs 66 to illuminate the background (Figure 5). Only either red LEDs or green LEDs for letters 66 are shown by Schwartz. The emergency circuit of Schwartz is integrated with the drive circuit. Schwartz does not disclose the ability to select a red or a green color LEDs 61 for letters 13-16, but in fact letters 13-16 are illuminated with hard colored either red or green.

Figures 4 and 5 of the disclosure of the applicant shows an independent electrical circuit connected to emergency batteries 26 for optional independent emergency selective

monochrome red and green LEDs 48A and 48B for letters 38A-38D in accordance with a prior color selection . Schwartz does not disclose a similar emergency independent circuit for the monochrome red and green LEDs disclosed for the monochrome LEDs of Claim 26.

It is decisive that Claim 26 is dependent upon independent Claim 15. Therefore, the argument of the applicant as related to Claim 15 and relating to Paragraph 12 of the examiner likewise apply to dependent Claim 26, which is dependent upon independent Claim 15, and Schwartz in Claim 26 does likewise not anticipate elements not anticipated by Schwartz in Claim 15.

It is worth again noting that the red and green LEDs of Schwartz are split between one particular color string for LEDs 61 for letter areas 13-16 [Column 7, Lines 1 and 2], and another particular color string for LEDs 66 the background area 12 [Column 7, Lines 60-63]. There is no disclosure by Schwartz of the emergency lighting systems of the applicant, which include the selective capability of two-position DIP switch 54 between red and green colors for illumination of letter areas 38A-D. This is an argument set out above relating to Paragraph 12.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 26 has been traversed.

### **Paragraph 22**

The examiner rejects Claims 27-28 and 31-38 under 35 U.S.C. 102(b) as being anticipated by Schwartz.

The applicant respectfully traverses such rejections as follows under the specific Paragraphs as follows.

### **Paragraph 23**

The examiner makes specific reference to the limitation in Claim 27 of “a plurality of bicolor red and green LEDs that are mounted in mutual lighting association in the housing [Column 6, Lines 30-38], and “means for selective activation of the plurality of bicolor red and green LEDs [Figure 5; Column 6, Lines 39-41].

The applicant respectively traverses the rejection of Claim 27 with particular reference to the two above quoted features as follows:

The exit sign disclosed by the applicant is directed to the manufacture of a single model of an exit sign that can be shipped to jurisdictions of differing statutes and customs requiring either a red or green color passed in the form of indicia symbolizing an exit sign.

Claim 27 claims means for selective activation of the plurality of bicolor red and green LEDs. Either a red or green color of the bicolor LEDs is activated in accordance with the statute or custom of the jurisdiction where the exit sign is to be mounted by, for example, a retailer or an installer, to produce the red or green color. The application discloses a DIP switch 54 for bicolor red and green LEDs that are operated to select the required red or green color.

As will be demonstrated, the Schwartz patent does not disclose that capability. The Schwartz device does not disclose a structure in the exit sign that would make possible any selective activation of a particular color or red and green bicolor LEDs to illuminate indicia symbolizing an exit at the site of installation.

The applicant briefly summarizes the embodiments of the Schwartz disclosure as follows:

1) Either red or green LEDs 33, 38 illuminate letters 13 -16 forming the word EXIT [Column 5, Lines 34-37]. The manufacturer selects the red or green LEDs 33,38 in accordance with the law or custom of the particular jurisdiction and mounts the selected LED into the exit sign and ships that model to the jurisdiction for installation. No change of the color of that model is possible at the place of installation.

2) Either red or green LEDs 33, 38 illuminate letters 13-16 and contrasting red or green LEDs 40-41 illuminate background area 12 [Column 6, Lines 13-18]. The manufacturer selects either the red LEDs or the green LEDs for the letters 13-16 in accordance with the law or custom of the particular jurisdiction for the exit sign. The color selected to illuminate the background area would merely contrast the selected red or green LEDs to illuminate the letters. The manufacturer makes that model of the exit sign accordingly and ships it to the jurisdiction for installation. No selection of color is possible at the area of installation.

It is worth noting that no statute or code known to the applicant requires contrasting colors of the letters of the exit sign and the background.

3) One embodiment of the exit sign is directed to sudden emergency operation such as a fire that would flash alternating red and green colors. This emergency flashing operation is accomplished as follows:

A) Bicolor LEDs 33,38 and bicolor LEDs 40-41. (Column 6 Lines 30-36). When power is interrupted, alternating red and green colors flash.

B) Two strings of monochrome red and green LEDs for letters 13-16 and contrasting red or green LEDs 40-41. When power is interrupted, alternating red and green colors flash. ((Note: The applicant is aware that Claim 27 includes bicolor LEDs,

but mentions monochrome red and green LED strings since they are included in the Schwartz reference.)

Emergency operation is accomplished by system circuit control 60 [Column 8, lines 3-9] as will be further discussed in detail below.

Schwartz designates LEDs 61 for the LEDs illuminating letters 13-16 in Figure 5 and designates LEDs 33, 38 for the LEDs illuminating letters 13-16 in Figure 4. Thus, the mentioned emergency flashing includes simple flashing and color reversals.

It is noted once again that a sudden emergency is to be distinguished from an emergency electrical backup battery system in the event of a power failure.

The applicant notes parenthetically that Schwartz discloses arrows 62 and 64 [Column 7, Lines 3-26]. The applicant notes that arrows 62, 64 are directional symbols and are not required under standard regulations for exit signs known to the applicant. As such, any directional symbols for exit signs voluntarily installed would not be required to be colored in accordance with the red or green color regulations for exit signs of various jurisdictions.

In further commentary on this subject, the applicant further notes that arrows 62, 64 can be illuminated by bicolor LEDs so as to contrast with the color of background area 12. Switches 63, 65 shown in Figure 5 are installed to color arrows 62, 64 in the case of bicolor LEDs to contrast to the color of background area 12, whether red or green as the case may be. The red or green color for background area 12 will in turn contrast with the red or green color for letters 13-16 whatever the case may be. When bicolor LEDs are used, switches 63, 65 switch arrows 62, 64 from foreground color to background color. The installer can power the appropriate arrows 62, 64 for wherever

the exit sign is mounted. In fact, however, selected red or green colors for arrows 62, 64 are ultimately limited by the prior selection of red or green colors for letters 13-16 whose colors are preselected at the factory at the time of manufacture.

Thus, Schwartz does not disclose the “means for selective activation of the plurality of bicolor red and green LEDs” For this reason, Schwartz does not anticipate Claim 27 of the applicant.

The applicant makes the following observations in support of the above argument.

Claim 27 has the element “a plurality of bicolor LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of bicolor LEDs being mounted in mutual lighting association in said housing.”

These bicolor red and green LEDs are based upon red LEDS 32A and green LEDs 32B shown in Figure 2 and their operation is shown in Figure 2A. Thus, red LEDs 32A can be selectively activated to pass red light in the form of indicia or alternatively green LEDs 32B can be selectively activated to pass green light in the form of indicia by the installer, for example, at two-position DIP switch 54 in accordance with the statutes or customs of the jurisdiction where the exit sign is being installed.

The structural limitations of the exit sign relating to Claim 27 are further shown in Figure 6 and applicant’s disclosure in support of Claim 6 on Page 17, Lines 14-24, where it is stated “Red and green colors of bicolor LED 86 can be energized independently of one another by DIP switch 54A.”

Further, it is stated on Page 17, Lines 18-24: “DIP switch 54A comprises two operational switches 54AX and 54BX. Internal switch 54AX is capable of contact with the red color of bicolor LED 86, specifically to the anode(s) of the LED die(s) for red

colors while the cathode(s) of the color red of LED 86 is tied directly to DC ground 66A. Internal switch 54BX is capable of contact with the green color of bicolor LED 86, specifically to the anode(s) of the LED die(s) for green colors while the cathode(s) of the color green of LED 86 is tied directly to DC ground 66A.”

Schwartz, on the other hand, does not disclose the color selective capability of the exit sign of the applicant. What Schwartz shows is a system control (60) that does not have selective color capability of the exit sign of the applicant, which shows DIP switch 54A that is operable at the place of installation to select the required red or green color..

The examiner refers to Schwartz, Column 6, and Lines 30-38. This reference sets forth bi-color LEDs that “would allow the sign to be flashed in alternating red-and-green colors in case of an emergency.”

The applicant comments that the emergency referred to is the building emergency that triggers system control system 60 of Schwartz [Column 8, Lines 3-10] that has an input from the building alarm system 51.

Again, the applicant notes that the present application does not have a building alarm system response input for the reason that no code requires such a system response, at least that is known to the applicant.

Figure 5 of Schwartz shows bicolor LEDs (61) in electrical connection with Letter Drive (59) that is in turn in electrical connection with system control (60). The latter is described [Column 8, Lines 3-10], just mentioned above, where it is stated:

“The system control circuit (60) will be needed for more complicated embodiments of the invention. It may have an input from the building emergency alarm system (51), which could be a simple contact closure, or a voltage derived from the alarm

horns or bells from the system. This would be used to trigger either simple flashings of the exit sign lights, or the color reversals discussed above.”

Also see the following of Schwartz [Column 8, Lines 25-38]:

The system control (60) will preferably incorporate an emergency specific, multiple stage, highly specific, highly recognizable and attention getting operation to the signs functionality as responses to emergency conditions. This will be accomplished by incorporating the following emergency mode responses:

STAGE 1: Normal operation, which will be characterized by having the display be on in one or two colors.

The applicant comments that the term “display” is not defined by Schwartz, but must have reference to Column 6, Lines 12 as follows: “FIG. 4 shows the same detail Fig. 3, in the preferred embodiment having the background areas (12) illuminated in a contrasting color to the letter strokes. This can be easily accomplished by adding light sources (40) and (41) in the outward-facing slopes of the edge projections (34) and (36). The background illumination LEDs illuminate the central projections of the background areas (30) (42) in the same manner as described above for the letter strokes.” It is apparent that the “one or two colors” of the display has reference to Fig. 3 (one color) and Fig. 4 (two colors).

STAGE 2: Power outage operation, which will be characterized by having the display, if two color, switch letter stroke color and background color alternately at a rate of a color switch every one or two seconds.” (Underscoring added.)

STAGE 3: Fire operation, being characterized ...by rapid color reversals...(underscoring added.).

The bicolor LEDs (61) of Schwartz are associated with the emergency operations just described and are not associated with the ability of being selectively activated in the particular jurisdiction in which the exit sign is installed wherein the permanent color to illuminate the letters of exit sign is selected and manufactured as a model with no means for selecting the color red or green at the installation site.

This statement is true even if red and green bicolor LEDs are installed to illuminate letters 13-16. That is, a constant color is selected to illuminate the letters during normal operation. Only if there is a sudden emergency, such as a fire, are the bicolor LEDs of Schwartz triggered to color reversals. [Column 8, Lines 3-10].

The examiner has not mentioned Column 7, Lines 61-68, of Schwartz, which also sets forth a discussion of the contrasting illumination of the background areas where the "the LEDs in the background (66) will preferably be powered by their own driver circuits (58), allowing independent control of the letters and background areas. The letter drive (59) and background drive (58) circuits may be as simple as voltage regulators, or may include polarity switching capability for use with bi-color LEDs, or means for switching between two color strings, if it is desired to flash alternate colors in an emergency."

The applicant believes that the prior comments regarding system control system 60 of Schwartz likewise apply to the above reference.

After the examiner has made a careful consideration of the disclosure of Schwartz together with the above discussion, the applicant believes that it is clear that nowhere does Schwartz disclose either 1) "a plurality of bicolor red and green LEDs that are mounted in mutual lighting association in the housing" combined with 2) "means for selective activation of the plurality of bicolor red and green LEDs". That capability is

shown in the embodiment shown of the applicant's disclosure, in particular by DIP switch 54 (54AX, 54BX) shown in Figure 6.

Schwartz does not disclose any structure or its equivalent, or for that matter any such purpose or intention.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 27 has been traversed.

#### **Paragraph 24**

The examiner rejects Claim 28 on the basis that Schwartz reads upon all positively cited structural limitations, wherein a plurality of bicolor red and green LEDs is disclosed [Column 6, Lines 30-38].

The applicant respectively traverses the rejection of Claim 28 as follows:

Column 6, Lines 30-38, states:

"Another possibility for color assignment is opened up if commonly available bi-color LEDs are used for the sources. These LEDs light in red if powered in one polarity, green in the opposite polarity, and yellow if fed with AC. This would allow the sign to be flashed in alternating red-and-green colors in the case of an emergency."

(Underscoring added.)

The disclosure of the applicant on Page 17, Lines 15-18, with reference to Figure 6 states the following: "When both the red and green colors of bicolor LED 86 are switched on and energized, a third color, namely, the color yellow, will be produced from the color mixing of the output color emissions of the color red with the color green."

Claim 28 specifically sets forth selective activation by the means for selective activation of the plurality of bicolor red and green LEDs to simultaneously emit red light

and green light to produce yellow light.

The selective simultaneous activation of both the red LEDs and green LEDs will produce yellow light, as is known in the art.

Schwartz does not disclose a simultaneous activation of red and green color LEDs to produce a yellow color.

Also, Claim 28 is dependent upon claim 27, which includes significant structural limitations not disclosed by Schwartz, which has been argued under Paragraph 23.

The applicant has traversed the rejection of Claim 27 by the examiner as set forth under the rejection of Paragraph 23 with respect to Schwartz. Although Schwartz discloses a plurality of bicolor red and green LEDs as does the disclosure of the applicant, Schwartz does not disclose the structural limitation of “means for selective activation of the plurality of bicolor red and green LEDs.” Because Claim 28 is dependent upon Claim 27 and includes the same structural limitations, the transverse of the rejection of Claim 27 also transverses the rejection of Claim 28.

For the reasons set forth, the applicant believes that the examiner’s rejection of Claim 28 has been traversed.

### **Paragraph 25**

The examiner rejects Claim 31 on the basis that Schwartz discloses the indicia including the four independent letters forming the word “EXIT”.

The applicant respectively traverses the rejection of Claim 31 as follows:

Claim 31 is dependent upon independent Claim 27.

The applicant has traversed the rejection of Claim 27 by the examiner as set forth under the rejection of Paragraph 23 particularly with respect to Schwartz. Although

Schwartz discloses the indicia including the four independent letters forming the word "EXIT", Schwartz does not disclose the structural limitation of "means for selective activation of the plurality of bicolor red and green LEDs." Because Claim 31 is dependent upon Claim 27 and includes the same structural limitations, the applicant's arguments that transverse the rejection of Claim 27 also transverse the rejection of Claim 31.

For the reasons set forth, the applicant believes that the examiner's rejection of Claim 31 has been traversed.

#### **Paragraph 26**

The examiner rejects Claim 32 on the basis that Schwartz discloses the indicia including at least one symbol indicating an exit. [Figure 1: (13-18)].

The applicant has amended claim 32 to read as follows:

"Claim 32 (currently amended): The exit sign according to claim 27, wherein said indicia symbolizing an exit includes at least one symbol indicating an exit."

The applicant notes that indicia are not by definition herein limited to the word EXIT in English but can include "words or symbols in non-English speaking countries that have an analogous meaning to the word EXIT in English." (See application, Page 3, Lines 6-8.).

The applicant traverses the rejection of Claim 32 as follows:

The applicant notes that under the amended Claim 32 the element of "indicia symbolizing an exit" is generally disclosed by Schwartz although not specifically to a symbol that is analogous to the word EXIT in a non-English speaking country.

The significant fact, however, is that Claim 32 depends upon Claim 27. The cited

structural limitation recited in Claim 32 that is also shown in Gleason is nonetheless combined with the unique inventive means for selective activation of the plurality of bicolor LEDs to produce either red light or green light that is not shown in Gleason.

Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 27 also applies to Claim 26, and therefore the reason for the examiner's rejection of Claim 32 is likewise traversed.

### **Paragraph 27**

The examiner rejects Claim 33 on the basis that Schwartz discloses the one symbol being a chevron arrow. [Figure 1: (17-18)].

The applicant further notes that Schwartz also refers to left arrow 62 and right arrow 64 [Figure 5; Column 7, Lines 3 and 4].

Claim 33 has been amended to read as follows:

Claim 33 (currently amended): The exit sign according to claim [[32]] 27,  
~~wherein said at least one symbol is a chevron arrow further including means for passing light from selected said red light or selected said green light in the form of at least one directional symbol enabling viewing by an observer.~~

The applicant respectively traverses the rejection of Claim 33 as follows:

Claim 33 now depends on independent Claim 27.

Although Schwartz refers to an arrow in Figure 1 and arrows 16 and 17 and arrows 62 and 64, the applicant argues that nonetheless Schwartz does not anticipate Claim 33 for the reason as follows:

The argument that the applicant has set forth under Paragraph 23 regarding independent Claim 27 applies likewise to Claim 33 since Claim 33 depends upon Claim

27. Thus, all the limitations in Claim 27 that are not anticipated by Schwartz apply likewise to Claim 33.

The significant fact is that Claim 32 depends upon Claim 27. The cited structural limitation recited in Claim 32 that is also shown in Gleason is nonetheless combined with the unique inventive means for selective activation of the plurality of bicolor LEDs to produce either red light or green light that is not shown in Gleason.

Therefore, the same argument that the applicant has set forth in regard to the examiner's rejection of Claim 27 also applies to Claim 26, and therefore the reason for the examiner's rejection of Claim 32 is likewise traversed.

For this reason the applicant believes that the examiner's rejection of Claim 33 has been overcome.

### **Paragraph 28**

The examiner rejects Claim 34 on the basis that Schwartz discloses the means for selective activation of the plurality of bicolor LEDs being a switch [Column 7, Lines 3-25].

The applicant notes that Claim 34 has been amended so as to change the term "switch" to "two-position DIP switch". [See Page 10, Lines 13-24; Page 11, Lines 10-18 of the present application].

The applicant respectively traverses the rejection of Claim 34 as follows:

Switches 63 and 65 of Schwartz operate bicolor diodes 62 and 64 that illuminate arrows 62 and 64. Switches 63 and 65 "allow the installer to power the appropriate arrow(s) for wherever the sign is mounted." The red or green color selected for the arrow of Schwartz is selected only either to contrast with or to blend with either with the

preinstalled red or green color of for the background area 12 and the preinstalled red or green color for the letters 13-16. As will be discussed below, the red and green of the bicolor LEDs of the arrows, the background area and the letters will flash between red and green in the event of an sudden emergency such as a fire.

Arrows, or directional symbols, are distinct from the legally required color of the letters of exit signs in accordance with the differing regulations of various jurisdictions.

Schwartz does not show a feature that allows an installer to operate a switch on site that selects the permanent red or green color of the bicolor diodes for the letter stroke 3-16 or the background area 12.

A primary feature of the applicant's disclosure is means to select either red or green bicolor diodes that illuminate exit letters 38A-38D in accordance with laws or customs of various jurisdictions. Such means to select is two-position DIP switch 54, which is operable at the jurisdiction of installation by, for example, the installer. This means that the exit signs of the present application can be manufactured uniformly and shipped to various sites as a unit and color selected on site. The exit signs of Schwartz must be manufactured and assembled beforehand in accordance with special color requirements to meet the criteria of the various jurisdictions where they are to be installed.

Furthermore, Schwartz does not disclose any means to select the color of bicolor LEDs for letters 13-16. Schwartz discloses no switch to select the color red or the color green of bicolor LEDs 61 for the letter strokes 13-16. In sudden emergency operation of Schwartz [Column 8, Lines 2-10] the bicolor LEDs 61 of Schwartz at letters 13-16 flash between red and green as do the bicolor LEDs 66 of background area 12. The selection of the continuous showing of the color red or green at background area 12 and letters 13-

16 are preselected by the manufacturer of the Schwartz exit sign so that they cannot be changed later at the place of installation [Column 8, Lines 3-10 and Lines 31-41].

In summary, the color of the bicolor LEDs 61 of Schwartz are hard wired, that is, hard-colored, even though they are bicolor LEDs and only either a preselection of a red bicolor LED or a preselection of a green bicolor LED can be made at one time in the troughs of the letters 13-16 at the time of manufacture. Schwartz shows no structure that allows selective switching between red and green colors in the troughs of letters 13-16 forming the word “EXIT” at the place of installation to conform to the laws or customs of the jurisdiction.

In addition, the examiner’s reference to Column 7, Lines 3-25 of Schwartz shows only a reference to left 62 and right 64 arrows. The arrows of Schwartz do not apply to the “indicia symbolizing an exit enabling viewing by an observer” of Claim 27.

Schwartz at Column 8, Lines 3-10 and Lines 25-49 indicate a flashing of the bicolor diode letter stroke color and the bicolor diode background color at the rate of a color reversals every one or two seconds as dictated by system control 60 in the event of a sudden emergency. [Column 8, Lines 8-10] This is the only function of the bicolor LEDs of Schwartz.

Claim 34 depends upon independent Claim 27. The applicant believes that it has been shown that Schwartz does not anticipate significant features of independent Claim 27 as discussed earlier. For that reason Claim 34, Schwartz has, not anticipated which contains features of Claim 27 that are not anticipated by Schwartz.

The applicant believes that the rejection of Claim 34 has been traversed.

#### **Paragraph 29**

The examiner rejects claim 35 on the basis that Schwartz discloses the switch simultaneously activating both the red and green plurality of LEDs [Column 7, Lines 3-25].

Simultaneous activation of red and green bicolor diodes will produce yellow light.

Claim 35 has been amended as follows:

35. (amended) The exit sign according to claim 34, wherein said two-position DIP switch includes the capability to simultaneously activate both said red light and said green light so as to produce yellow light."

The applicant respectfully transverses the rejection of Claim 35 as follows:

The applicant has made a review of Column 7, Lines 3-25 of Schwartz and further has made a review of the patent of Schwartz, and can find no reference to simultaneous activation of switches 63 and 65 of Schwartz.

Schwartz states in Column 7, Lines 15-19: "Then the LEDs are switched to the foreground color (i.e. red), the arrow stands out from the contrasting background. When switched to the background color (i.e. green) the arrow blends into the background and becomes invisible." The color yellow is not mentioned. The color yellow is not intended.

The applicant does note the color yellow mentioned in Schwartz [Column 6, Lines 30-36] in the context or bicolor red and green LEDs. AC current could be used in the event of a sudden emergency to create a yellow flashing.

The applicant makes the following observation. Even if the exit sign of Schwartz had the switching capability of simultaneously activating both arrow switches 62 and 64 to produce the color yellow, the argument of the applicant would remain the same. That is, even if switches 62 and 64 could be simultaneously activated to produce the color

yellow, Schwartz shows no structure that allows switching between red and green colors and yellow in the troughs of letters 13-16 forming the word “EXIT” at the place of installation to conform with the laws or customs of the jurisdiction. Selection of the color red, the color green, or even the color yellow for the arrows of Schwartz does not change the observation that Schwartz does not disclose a switching capability for an installer at the site to select the color red, the color green or the color yellow as illumination for the exit letters 13-16, so as to conform the color to the legal requirements for exit letters of the particular jurisdiction. The manufacturer of the Schwartz exit sign preselects the color red or the color green in accordance with the requirement of the jurisdiction to which the exit sign is destined and hardens that selection into the exit sign thus leaving the installer without an option. This contrasts with the exit sign as disclosed in the present application where a single standard exit sign is manufactured and shipped to a jurisdiction where the installer can select the required color, red, green, or yellow so that the manufacturing process is much more efficient.

#### **Paragraph 30**

The examiner rejects Claim 36 on the basis that Schwartz discloses the means for optically diffusing the light being an optical diffuser. [Figures 3-4; (31); Column 6, Lines 3-6].

The examiner certainly has reference to transparent substance 31 [Column 6, Lines 1-12], which fills the troughs, preferably a plastic resin. The resin is preferably colored the same as the LEDs to aid in the diffusion and to provide color when the lights are off. The resin in the letter stroke area and in the background area is preferably tinted in contrasting colors.

The applicant respectively traverses the rejection of the examiner as follows:

First of all, substance 31 is not a true optical diffuser since Schwartz states the resin is preferably colored. Also, the resin is said to merely aid in diffusion.

The definition of “diffuser” in Webster’s Collegiate Dictionary is: “a device (as a reflector) for distributing the light of a lamp evenly” It is apparent that substance 31 does not distribute light evenly since it varies in thickness in troughs. [Column 5, Lines 24-34] The entire reference makes clear that the troughs comprise inwardly facing slopes, thus making the resin uneven in thickness. The diffusion of light is thus uneven.

The applicant notes that the resin in the letter stroke area is preferably tinted on one color and the resin in the background area is tinted in another color. Thus the red color and the green color of the stroke area 13-16 are hard wired, or hard-colored, and cannot be selected later at the installation site.

Also, Claim 36 is dependent upon independent Claim 27. Therefore, the argument of the applicant as related to Claim 27 in Paragraph 23 of the examiner likewise apply to dependent Claim 36 since Claim 36 is dependent upon independent Claim 27, and elements not anticipated by Schwartz in Claim 27 are likewise not anticipated by Schwartz in Claim 36.

For all the reasons set forth the applicant believes that the examiner’s rejection of Claim 36 has been traversed.

The applicant also notes that Schwartz discloses colored resins in the troughs of background area 12 and letters 13-16. The resins would be placed therein by the manufacturer it can be concluded. Logic further leads to the conclusion that Schwartz intended a permanent red or a green color of the bicolor LEDs for background area 12

and letters 13-16 at the place of manufacture with the further logical conclusion that Schwartz does not show any means for the selection of the color red or green for background area 12 and letters 13-16.

### **Paragraph 31**

The examiner rejects Claim 37 on the basis that Schwartz discloses battery means to power the plurality of bicolor red and green LEDs [Column 7, Lines 29-30].

The applicant respectively traverses the rejection of the examiner as follows:

Claim 37 is based upon emergency battery 26 also shown in Figures 4 and 5.

Schwartz discloses a backup battery 54 [Column 7, Lines 38-41].also shown in Figure 5. The applicant believes that the Schwartz power source 55 disclosed in Column 7, Lines 29-30 is served by emergency backup 54 of Schwartz..

Backup battery 54 of Schwartz and backup battery 26 of the applicant perform similar functions with the proviso that such comment is not an admission of the disclosure by Schwartz in accordance with the following commentary. The emergency battery 54 of Schwartz powers system control 60, which is discussed in Schwartz (Column 8, Lines 3-48, which describe the emergency “flashing of the exit sign lights, or the color reversals” [Column 8, Lines 9-10]. The applicant’s application does not include flashing or color reversals of LEDs, because the function of the applicant’s LEDs basically differs from those of Schwartz.

Claim 37 is dependent upon independent Claim 27. Therefore, the argument of the applicant as related to Claim 27 relating to Paragraphs 23 of the examiner likewise applies to Claim 37 since Claim 37 is dependent upon independent Claim 27, and Schwartz in Claim 37 does likewise not disclose elements not disclosed by Schwartz in

Claim 27. Such elements of Claim 27 include “means for selective activation of said plurality of bicolor LEDs to produce either said red light or said green light”, which is not disclosed by Schwartz, as traversed in the discussion under Paragraph 23.

For the reason set forth the applicant believes that the examiner’s rejection of Claim 37 has been traversed.

### **Paragraph 32**

The examiner rejects Claim 38 on the basis that Schwartz discloses means for providing emergency light including a plurality of monochrome LEDs, whereby the means for producing emergency light is electrically connected to the battery means [Column 7, Line 61-Column 8, Line 10].

The applicant respectively traverses the rejection of the examiner as follows:

Claim 38 is based upon optional emergency monochrome LEDs 48A and 48B shown in Figure 4 also shown in Figure 5 and disclosed in the present application on Page 15, Lines 21-21 and on Page 16, Line 6. Emergency red and green monochrome LEDs 48A and 48B replace red and green LEDs 32A and 32B in case of an emergency. LEDs. The red and green monochrome LEDs of Schwartz are the primary LEDs.

Optional emergency monochrome LEDs 48A and 48B are not disclosed by Schwartz. System control 60 of Schwartz, which is discussed in Schwartz (Column 8, Lines 3-48, operates the emergency “flashing of the exit sign lights, or the color reversals...” [Column 8, Lines 9-10]. The applicant’s application does not include flashing or color reversals of monochrome LEDs because the function of the applicant’s monochrome LEDs differ from the LEDs of Schwartz.. That is, monochrome LEDs 48A and 48B replace the steady illumination of the red and green LEDs 32A and 32B.

Schwartz discloses system control 60 (Column 8, Lines 3-48), including the emergency “flashing of the exit sign lights, or the color reversals...”. [Column 8, Lines 9-10]. The applicant’s application does not include flashing or color reversals of LEDs, because the function of the applicant’s LEDs differs from that of Schwartz.

Claim 38 is dependent upon independent Claim 27. Therefore, the argument of the applicant as related to Claim 27 relating to Paragraph 23 of the examiner likewise applies to Claim 38 since Claim 38 is dependent upon independent Claim 27, and Schwartz in Claim 38 does likewise not disclose elements not disclosed by Schwartz in Claim 27. Such elements of Claim 27 include the element “means for selective activation of said plurality of bicolor LEDs to produce either said red light or said green light”, which is not disclosed by Schwartz, as traversed in the discussion under Paragraph 23.

For the reason set forth the applicant believes that the examiner’s rejection of Claim 38 has been traversed.

### **Paragraph 33**

The examiner rejects Claims 3-4 and 6-7 under 35 U.S.C. 103(a) as being unpatentable over Gleason et al. as applied to Claim 1 and further in view of Schwartz.

Before proceeding, the applicant notes that under Paragraphs 1 and 2 the examiner has rejected Claims 1 and 2 under 35 U.S.C. 102(b) as being anticipated by Gleason et al.

The applicant has traversed such rejections under Paragraphs 1 and 2.

The applicant has not presented any argument(s) that differentiates Claims 1 and 2 of the applicant from Schwartz alone under 35 U.S.C. 102(B). At the end of the present responses to the examiner’s rejections of Claims 3 and 4 under Paragraphs 34 and 35, the

applicant will briefly set forth certain inventive features of Claims 1 and 2 that are not disclosed in Schwartz that would be contained in Claims 3 and 4.

The applicant respectfully transverses Claims 3 and 4 and 6 and 7 as follows in the particular Paragraphs 34-37 set out by the examiner as follows:

**Paragraph 34**

The examiner rejects Claim 3 on the basis that Gleason discloses the claimed invention as cited above. Further, in paraphrase, it is indicated that Schwartz specifically teaches the plurality of LEDs including a plurality LEDs including a plurality of monochrome red LEDs and a plurality of monochrome green LEDs.

The examiner further quotes Schwartz [Column 6, Lines 21-29] "According to the code the letter strokes and background areas should be illuminated in contrasting colors. This is easily accomplished by using commonly available red and green LEDs for the letter stroke and background illumination, respectively. In such a case, the troughs of the letter strokes may be filled with red-tinted resin and the background areas filled with green-tinted resin. [Column 6, Lines 21-29].

The examiner states, "It would have been obvious to modify the exit sign of Gleason to incorporate the plurality of red and green LEDs, so as to create a more ostentatious display, whereby one color may be emitted during normal operations and a different color during emergency situations.

The applicant respectfully transverses such rejection.

The applicant first notes that the examiner regarding Claim 1 has not cited Schwartz. A further argument regarding the fact that Schwartz neither anticipates nor suggests Claim 1 will be made at the end of this paragraph.

The applicant notes that no background color whatsoever for an exit sign is required under the code. The disclosure of the applicant does not include a background color.

Schwartz does not disclose that the color that illuminates the letter strokes during normal operation can be changed permanently. Once the manufacturer of Schwartz installs the color or green that particular color cannot be altered later at the installation site. That is, the selected color illuminating the letter strokes 13-16 and the selected color of the background are permanent.

As a first observation, if the “troughs of the letter strokes may be filled with red-tinted resin and the background areas filled with green-tinted resin”, then the basic underlying color red or green illuminating the letter strokes cannot be changed, it is safe to say.

Schwartz does disclose in various areas of the disclosure a sudden emergency situation. “This would allow the sign to be flashed in alternating red-and-green colors in case of an emergency. In the alternative, two strings of single-colored LEDs could be alternately powered to change the color.” [Column 6, Lines 36-38].

It is significant to note that according to Schwartz, if one color, red or green, is selected to illuminate the letter strokes that one color can be wired to flash in the event of a sudden emergency. The permanent required color, however, does not change. If red, for example, is wired to illuminate letter troughs, that is to say that if red is the permanent required color that, according to the jurisdiction of installation of the exit sign, illuminates the letters under normal operation, and there is another color, say green, that is also mounted in the letters troughs, and a sudden emergency occurs, system control

circuit 60 [Column 8, lines 3-10] will cause the red and green colors to flash in alternating red-and-green colors. [Column 6, Lines 30-38]. When the emergency is over, system control circuit 60 will cause the system to revert to the normal permanent color, which is red in the present paradigm. Also, a bicolor red and green diode might be installed that would flash to green and red in case of a sudden emergency and then revert to red when the sudden emergency is over. (Although bicolor diodes are not at issue under Paragraph 34, the concept with the disclosure of Schwartz is consistent and is mentioned for the purpose of concept.)

The flashing is further described in Schwartz [Column 8, Lines 3-10].

The applicant notes that Schwartz primarily discloses troughs formed in the shape of letters with point light sources attached to the slopes of the troughs. The various functional operational arrangements of the red and green diodes of emergency flashing in the letter troughs and the background area of Schwartz are not fully fleshed out. The applicant believes, however, that the point has been made that a permanent color must be shown for the letters of the exit sign in accordance with the jurisdiction of installation.

The applicant further comments as follows:

The above excerpt from Schwartz mentions (repeating the quote above) “According to the code the letter strokes and background areas should be illuminated in contrasting colors. This is easily accomplished by using commonly available red and green LEDs can be used for the letter stroke and background illumination, respectively.

Schwartz mentions the code previously as follows: “This quality makes it difficult for LED signs to conform to section 5-10.3.4 of the NFPA code described above, when used within their usual design constraints.” [Column 2, Lines 19-21]. The applicant

assumes that Schwartz's references to "the code" are the same.

For the record, as best the applicant can determine, the NFPA code does not require that the letters and the background area of a sign be illuminated in contrasting colors. The NFPA code does not require that one color be emitted during normal occasions and a different color during emergency situations.

The following is an excerpt from LIFE SAFETY CODE 1994 (NFPA 101) (PP 47-4, 26).

#### **Section 5-10.3 ILLUMINATION OF SIGNS**

**5-10.3.1 EVERY SIGN REQUIRED BY 5-10.1.2 OR 5-10.3 SHALL BE SUITABLY ILLUMINATED BY A RELIABLE LIGHT SOURCE. EXTERNALLY AND INTERNALLY ILLUMINATED SIGNS SHALL BE VISIBLE IN BOTH THE NORMAL AND EMERGENCY LIGHTING MODE.**

**5-10.3.2 EXTERNALLY ILLUMINATED SIGNS SHALL BE EMPLOYED BY NOT LESS THAN 5 FOOTCANDLES (54LX) AND SHALL EMPLOY A CONTRAST RATIO OF NOT LESS THAN 0.5.**

**5-10.3.3 THE VISIBILITY OF AN INTERNALLY ILLUMINATED SIGN SHALL BE THE EQUIVALENT OF AN EXTERNALLY ILLUMINATED SIGN THAT COMPLIES WITH 5-10.3.2.**

**EXCEPTION NO. 1: APPROVED EXISTING SIGNS**

**EXCEPTION NO. 2 APPROVED SELF-LUMINOUS OR ELECTROLUMINESCENT SIGNS THAT PROVIDE EVENLY ILLUMINATED LETTER SHALL HAVE A MINIMUM LUMINANCE OF 0.06 FOOTLAMBERTS AS MEASURED BY A COLOR-CORRECTED PHOTOMETER.**

5-10.3.4 EVERY SIGN REQUIRED BY 5-10.1.4 SHALL PROVIDE EVENLY ILLUMINATED LETTERS HAVING A MINIMUM LUMINANCE OF 0.06 FOOTLAMBERTS.

EXCEPTION: SIGNS COMPLYING WITH THE REQUIREMENTS OF 5-10.3.3 ARE ACCEPTABLE.

Review of this referenced part of the NFPA code does not reveal that "the letter strokes and background areas should be illuminated in contrasting colors."

The applicant does not disclose a flashing of different colors during emergency situations. That is not required by the code. The applicant does not disclose any system response to a sudden emergency. Both Schwartz and the applicant show an emergency battery backup system the event of a power failure, which is to be distinguished from a sudden emergency.

Schwartz discloses various embodiments of an exit sign all relating to troughs for holding colored LEDs as follows:

- 1) a single color of LEDs for exit letters for normal operation [Column 5, Lines 34-68; Column 6, Lines 1-2; Figure 3] with the LEDs in the troughs of the letters.
- 2) a transparent substance preferably colored the same color as the color of the LEDs in the troughs of letters; [Column 6, Lines 3-9].
- 3) a single color of LEDs for the troughs of the exit letters and a contrasting color for the LEDs of the background area for normal operation [Column 6, Lines 9-11; Figure 4].
- 4) a transparent substance (resin) for the troughs of the letters and a transparent substance (resin) for the troughs of the background area [Column 6, Lines 3-11].

5) a colored resin in the troughs of the exit letters and another colored resin in the troughs of the background area [column 6 , Lines 7-9].

6) simple flashing of the LEDs of the exit sign in the event of a building emergency [Column 8, Lines 3-10].

7) color reversals for [bicolor LEDs or switching between two color strings for flashing alternate colors in a sudden emergency [Column 7, Lines 65-68; Column 8, Lines 25-48].

The applicant on the other hand in Claim 1 discloses a plurality of LEDs capable of being selectively activated to produce either red light or green light for the illumination of the letters of the exit sign. The color is selectively activated from the plurality of LEDs at the installation area or site as embodied by two-position DIP switch 54 (Figure 2). The selection of the required color red or green is made at the site, by the installer, example, in accordance with the legal requirement of the jurisdiction. Such a legal color requirement, red or green, is independent of the requirements of the NFPA code.

Neither Gleason nor Schwartz neither alone or in combination, suggest nor disclose red or green monochrome LEDs that are selectively activated on site. It is implicit in both Gleason and Schwartz that the selection of LED monochrome red or green colors for the exit letters is made by the manufacturer, and thereupon preinstalled into the exit sign before shipment to the jurisdiction.

The means for selective activation of the plurality of LEDs to produce either red light or green light at the jurisdiction of installation requires specific manufacturing features by the maker is new and unique. Such selective activation means has a specific purposes, for example, to allow the vendor to reduce stock inventory, to simplify

manufacturing processes, and to provide the buyer means to correct any problem at the installation site caused by an incorrect product delivery.

The applicant has previously traversed the examiner's rejection of Claim 1 as being anticipated by Gleason under Paragraphs 1 and 2. Claim 3 is dependent upon Claim 1, so that the features of Claim 1 are included in Claim 3. The "means for selective activation" of Claim 1 is interconnected with the plurality of LEDs of Claim 3 since Claim 3 is dependent upon Claim 1, and thus carries the limitations of Claim 1.

The applicant here notes that the examiner's rejection of Claims 1 and 2 under 35 U.S.C. 102(b) in Paragraphs 2 and 3 has been traversed by the applicant. in Paragraphs 2. and 3, respectively, in regards to Gleason.

It is further noted that Schwartz also does not disclose the following elements of Claim 1:

- 1) "a plurality of LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of LEDs being mounted in mutual lighting association in said housing," and
- 2) "means for selective activation of said plurality of LEDs to produce either said red light or said green light".

Claim 3 includes these elements of Claim 1, and thus Schwartz alone does not anticipate Claim 3.

In summation, the features of Claim 3 are not anticipated or suggested by Gleason alone nor anticipated or suggested by Schwartz alone, nor anticipated or suggested by Gleason in combination with Schwartz. For the reasons set forth, the applicant believes that the examiner's rejection of Claim 3 has been traversed.

### **Paragraph 35**

The examiner rejects Claim 4 on the basis that Gleason in view of Schwartz discloses the claimed invention. The examiner also quotes Schwartz [Column 7, Line 65-Column 8, Line 2]. The quotation includes switching capability for bicolor LEDs or means for switching between two color strings, if it is desired to flash alternate colors in an emergency [Column 7, Line 65 – Column 8, Line 2].

Before proceeding, the applicant notes that under Paragraphs 1 and 2 the examiner has rejected Claim 1 under 35 U.S.C. 102(b) as being anticipated by Gleason et al.

The applicant has traversed such rejection under Paragraphs 1 and 2.

The applicant has not presented any argument(s) that differentiates Claim 1 of the applicant from Schwartz alone under 35 U.S.C. 102(B). At the end of the present responses to the examiner's rejection of Claim 4, the applicant will briefly set forth certain inventive features of Claim 1 that are not disclosed in Schwartz that would be contained in Claim 4.

The applicant discloses an exit sign that includes bicolor diodes that illuminate the letters "EXIT". The code does not require flashing of colors in the event of a sudden emergency, such as a fire.

Schwartz discloses an exit sign provided with lighting troughs for LEDs to illuminate the word EXIT. A background area 12 is also illuminated. Schwartz discloses an added function for the bicolor LEDs and that is of being responsive to a sudden emergency, such as a fire. Flashing of colors by the bicolor diodes illuminating the exit sign in the event of an emergency is the added function of the colors of the exit sign of

Schwartz.

Schwartz discloses flashing of red and green colors of the letter strokes 12 or alternating flashing of the letter strokes with the flashing of the background colors in the event of a sudden emergency such as a fire. These flashings are controlled by system control circuit 60 [Column 8, Lines 1-10]. The flashing of Schwartz is disclosed in Column 6, Lines 30-41].

Schwartz also describes contrasting colors for the letter strokes and the background. [Column 6, Lines 22-26].

Schwartz also describes an emergency power backup 54 in the case of a power failure.

The applicant's disclosure relates to a basic exit sign. No control circuit is provided used in the event of an general emergency. That is, of course, the exit signs herein. The applicant's application includes a backup for a power failure.

Thus, the quotation taken by the examiner from Schwartz refers to flashing alternate colored strings of LEDs or bicolor LEDs in case of a sudden emergency. System control 60 of Schwartz describes such emergency flashing. The exit sign might have both a color LEDs for the letters and another color of LEDs for the background. The two bicolor LEDs could alternately flash as signaled from system control 60 during a general emergency.

Schwartz is restricted in that a required permanent color red or green to illuminate the letters "EXIT" must be mounted to the circuit of the exit sign by the manufacturer to meet the color requirements, generally red or green, in the jurisdiction of the site of installation. Once at the installation site, mounted color, red or green, to illuminate the

letters of the exit sign cannot be changed. If there is error, the exit sign must be shipped back to the manufacturer. There is no provision for selective selection of letter color at the site.

The disclosure by Schwartz of flashing in the event of a sudden emergency is unrelated to the installation of the color of the bicolor LED in normal operation. Once the sudden emergency is over, system control circuit 60 signals the color of the bicolor diode to revert to the pre-emergency color, whether red or green.

Response of an exit sign to a sudden emergency is not described nor is it required by a code that is known to the applicant. An added function can of course be included in the exit sign of Schwartz, but be that as it may, the permanent color emitted by the bicolor diode of Schwartz will remain as wired during manufacture.

The arguments of the applicant traversing the rejection of the examiner as set forth in Paragraph 34 regarding Claim 3 in an analogous manner to the present paragraph and the rejection of Claim 4. That is, the argument relative to red and green monochrome LEDs is analogous to the argument for red and green bicolor LEDs.

Claim 4 is dependent upon independent Claim 1, which includes the following limitations:

- 1) “a plurality of LEDs having the capability of being selectively activated to produce either red light or green light...”, and
- 2) “means for selective activation of said plurality of LEDs to produce either said red light or said green light in the form of indicia...”.

Claim 4 includes these features.

Neither Gleason nor Schwartz either individually nor in combination suggest or

disclose the elements of the applicant's disclosure, or claims that a single red or green color of bicolor LEDs can be selected and activated at the site of installation by a means of selective activation.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 4 has been traversed.

### **Paragraph 36**

The examiner rejects Claim 6 on the basis of Gleason in view of Schwartz discloses the claimed invention. The examiner further states that Schwartz teaches a means for passing light in the form of indicia including a non-transparent stencil defining light passageway openings forming the indicia [Column 1, Lines 35-39].

The applicant notes that the examiner has not rejected Claim 1 over Schwartz, because Claim 6 includes all the elements of Claim 1, an argument will be made at the end of this paragraph regarding Schwartz.

Schwartz describes an opaque panel with the word "EXIT" cut out with regard to the first powered EXIT signs that utilized incandescent or fluorescent bulbs for their illumination source. Such means for passing light in exit signs are old in the art and are not inventive relative to Schwartz.

Gleason likewise describes a housing 52 with a display board 54 with the word "EXIT" marked thereon at 56. The word "EXIT" is illuminated by red light LEDs. [Column 6, Lines 7-14]. Such means for passing light in exit signs are old in the art and are not inventive relative to Gleason.

Claim 6 is dependent upon Claim 1 and as such all the limitations of Claims 1 apply to Claim 6.

discloses the claimed invention. In addition, the examiner states that Schwartz teaches a means for passing light in the form of indicia including a translucent stencil having non-transparent areas and transparent areas, whereby the transparent areas form the indicia through which the light passes through to identify the indicia [Column 1, Lines 35-39].

The applicant notes that the examiner has not rejected Claim 1 over Schwartz, because Claim 7 includes all the elements of Claim 1, an argument will be made at the end of this paragraph regarding Schwartz.

Claim 7 is based upon the disclosure of the applicant [Page 8, lines 23-26; Page 9, Lines 1-6].

The applicant notes that in fact Schwartz teaches a colored plastic sheet placed between the light source and the panel [Column 1, Lines 39-40]. The applicant agrees that this is a transparent area. Such means for passing light in exit signs are old in the art and are not inventive relative to Schwartz

It is apparent that the display board disclosed by Schwartz has a transparent area in the manner of Claim 7.

Claim 7 is dependent upon Claim 1 and as such all the limitations of Claims 1 apply to Claim 7.

Schwartz and Gleason neither alone or in combination neither describe nor suggest the following features of Claim 1:

1) a plurality of LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of said plurality of LEDs to produce either said

The applicant notes that in fact Schwartz teaches a colored plastic sheet placed between the light source and the panel [Column 1, Lines 39-40]. The applicant agrees that this is a transparent area. Such means for passing light in exit signs are old in the art and are not inventive relative to Schwartz

It is apparent that the display board disclosed by Schwartz has a transparent area in the manner of Claim 7.

Claim 7 is dependent upon Claim 1 and as such all the limitations of Claims 1 apply to Claim 7.

Schwartz and Gleason neither alone or in combination neither describe nor suggest the following features of Claim 1:

- 1) a plurality of LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of LEDs being mounted in mutual lighting association in said housing, and
- 2) means for selective activation of said plurality of LEDs to produce either said red light or said green light.

Neither Gleason nor Schwartz either individually or in combination suggest or disclose the elements of the applicant's that a single red or green color of LED can be selectively activated at the site of installation.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 7 has been traversed.

#### **Paragraph 38**

The examiner rejects Claims 17-18 under 35 U.S.C. 103(a) as being unpatentable over Schwartz as applied to Claim 15.

The applicant respectfully transverses the rejections of Claims 17-18 in accordance with the particular Paragraphs 39 and 40 of the examiner as follows.

**Paragraph 39**

The examiner particularly rejects Claim 17 on the basis that Schwartz teaches in the prior art a means for passing light in the form of indicia including a non-transparent stencil defining light passageway openings forming the indicia [Column 1, Lines 35-39].

Claim 17 is based upon stencil 36 shown in Figure 1C of the applicant's disclosure.

Schwartz describes an opaque panel with the word "EXIT" cut out with regard to the first powered EXIT signs that utilized incandescent or fluorescent bulbs for their illumination source.

Such means for passing light in exit signs are old in the art and are not inventive relative to Schwartz.

Schwartz does not describe nor suggest the following features of Claim 15:

1) a plurality of monochrome red LEDs and a plurality of green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of monochrome red LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of either said plurality of monochrome red LEDs to produce either said red light or said plurality of monochrome green LEDs to produce said green light.

The applicant has specifically set forth such arguments in Paragraph 12 relating to Claim 15 relating to the non-disclosure of in Schwartz of the above limitation.

Schwartz does not disclose or suggest the elements of Claim 15 and therefore does not anticipate Claim 17.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 17 has been traversed.

**Paragraph 40**

The examiner rejects Claim 18 on the basis of Gleason in view of Schwartz and in addition that Schwartz teaches a means for passing light in the form of indicia including a translucent stencil having non-transparent areas and transparent areas, whereby the transparent areas form the indicia through which the light passes through to identify the indicia [Column 1, Lines 35-39].

Claim 18 is based upon applicant's stencil 36A shown in Figure 1D.

Translucent stencils having the features of Claim 18 are old in the art.

The applicant notes that Claim 18 is dependent upon Claim 15 and as such all the limitations of Claim 15 apply to Claim 18.

Schwartz does not describe nor suggest the following features of Claim 15:

1) a plurality of monochrome red LEDs and a plurality of green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of monochrome red LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of either said plurality of monochrome red LEDs to produce either said red light or said plurality of monochrome green LEDs to produce said green light.

The applicant has specifically set forth such arguments in Paragraph 12 relating to

Claim 15 and relating to the non-disclosure of Schwartz on the above limitation.

Claim 18 is dependent upon Claim 15 and therefore contains all the features of Claim 15.

Schwartz does not disclose or suggest the elements of Claim 15 and therefore does not anticipate Claim 18.

Gleason does not describe nor suggest the following features of Claim 15:

1) a plurality of monochrome red LEDs and a plurality of green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of monochrome red LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of either said plurality of monochrome red LEDs to produce either said red light or said plurality of monochrome green LEDs to produce said green light.

Claim 18 is dependent upon Claim 15 and therefore contains all the features of Claim 15.

Gleason does not disclose or suggest the elements of Claim 15 and therefore does not anticipate Claim 18.

Neither Gleason nor Schwartz either alone nor in combination neither describes nor suggests the features of Claim 18:

For the reasons set forth the applicant believes that the examiner's rejection of Claim 18 has been traversed.

#### **Paragraph 41**

The examiner rejects Claims 29 and 30 under 35 U.S.C. 103 (a) as being

unpatentable over Schwartz as applied to Claim 27.

The applicant respectfully transverses the examiner's rejections of Claims 29 and 30 in accordance with the particular Paragraphs 41 and 42 of the examiner as follows.

#### **Paragraph 42**

The examiner rejects Claim 29 on the basis that Schwartz discloses the claimed invention as cited, but does not specifically teach within the same embodiment a non-transparent stencil. The examiner further notes that Schwartz does teach in the prior art a means for passing light in the form of indicia including a non-transparent stencil defining a light passageway openings from the indicia [Column 1, Lines 35-39]. The examiner further states that it would have been obvious for Schwartz to simplify the manufacturing process by using a non-transparent stencil as an obvious engineering decision and design choice.

The applicant respectfully transverses the examiner's rejection of Claim 29 as follows:

Claim 29 is based upon stencil 36 shown in Figure 1C of the applicant's disclosure.

Schwartz describes an opaque panel with the word "EXIT" cut out with regard to the first powered EXIT signs that utilized incandescent or fluorescent bulbs for their illumination source.

Such means for passing light in exit signs are old in the art and are not inventive relative to Schwartz.

Claim 29 is dependent upon independent Claim 27 and as such all the limitations of Claim 27 apply to Claim 29.

Schwartz does not describe nor suggest the following features of Claim 27:

- 1) a plurality of bicolor red and green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of bicolor LEDs being mounted in mutual lighting association in said housing, and
- 2) means for selective activation of said plurality of bicolor LEDs to produce either said red light or said green light.

The applicant has specifically set forth arguments in Paragraph 23 relating to Claim 27 relating to the non-disclosure of in Schwartz of the above limitations.

Schwartz does not disclose the elements of Claim 27 and therefore does not disclose specific elements relating to Claim 29.

For the reasons set forth, the applicant believes that the examiner's rejection of Claim 29 has been traversed.

#### **Paragraph 43**

The examiner rejects Claim 30 on the basis that Gleason in view of Schwartz discloses the claimed invention, and that Schwartz teaches a means for passing light in the form of indicia including a transparent stencil having non-transparent areas and transparent areas, whereby the transparent areas form the indicia through which the light passes through to identify the indicia. [Column 1, Lines 35-39].

Claim 30 is based upon applicant's stencil 36A shown in Figure 1D.

Translucent stencils having the features of Claim 30 are old in the art.

The applicant notes that Claim 30 is dependent upon Claim 27, and as such all the limitations of Claim 27 apply to Claim 30.

Schwartz does not describe nor suggest the following features of Claim 27:

1) a plurality of monochrome red LEDs and a plurality of green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of monochrome red LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of either said plurality of monochrome red LEDs to produce either said red light or said plurality of monochrome green LEDs to produce said green light.

The applicant has specifically set forth such arguments in Paragraph 23 relating to Claim 27 relating to the non-disclosure of in Schwartz of the above limitation.

Claim 30 is dependent upon Claim 27, and therefore contains all the features of Claim 27.

Schwartz does not disclose or suggest the elements of Claim 27, and therefore does not anticipate Claim 30.

Gleason does not describe nor suggest the following features of Claim 27:

1) a plurality of monochrome red LEDs and a plurality of green LEDs having the capability of being selectively activated to produce either red light or green light, said plurality of monochrome red LEDs being mounted in mutual lighting association in said housing, and

2) means for selective activation of either said plurality of monochrome red LEDs to produce either said red light or said plurality of monochrome green LEDs to produce said green light.

Claim 30 is dependent upon Claim 27 and therefore contains all the features of Claim 27.

Gleason does not disclose or suggest the elements of Claim 27 and therefore does not anticipate Claim 30.

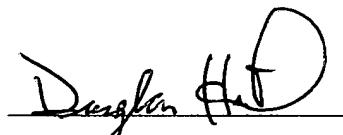
Neither Gleason nor Schwartz neither alone nor in combination describes nor suggests the features of Claim 30.

For the reasons set forth the applicant believes that the examiner's rejection of Claim 30 has been traversed.

Approval of amended claims and of all other claims as now submitted is respectfully requested.

Accordingly, favorable reconsideration and passage of this application to formal allowance is earnestly solicited at an early date.

Respectfully submitted,



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